Assignments:3

Create various data types and experiment its attribute
1) Name = “some name”
Convert above string into, upper, lower and capitalize
Replace ‘e’ with ‘E’ using attribute
2) L = [1,2,3]
Extend above list by using [5,6,7] and remove 5th value
3) d = {‘mango’: 10, ‘banana’: 0, ‘apple’: 15, ‘orange’: 0, ‘pineapple’: 20}
Remove out of stock fruits from above dictionary
Update mango quantity into 15 & decrease pineapple by 5

- Practise below slicing problems

An assignment statement containing the expression a[m:n] on the left side and a list on the right
side can modify list a. Complete the following table by supplying the m and n values in the slice
assignment statement needed to produce the indicated list from the given original list.
Slice indices
Original List Target List m n
[2, 4, 6, 8, 10] [2, 4, 6, 8, 10, 12, 14, 16, 18, 20] a=a+[12,14,16,18]print(a)
[2, 4, 6, 8, 10] [-10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10]
[2, 4, 6, 8, 10] [2, 3, 4, 5, 6, 7, 8, 10]

[2, 4, 6, 8, 10] [2, 4, 6, ’a’, ’b’, ’c’, 8, 10] a[3:3]=['a','b','c']
[2, 4, 6, 8, 10] [2, 4, 6, 8, 10] print(a)
[2, 4, 6, 8, 10] [] print(a[0:0])
[2, 4, 6, 8, 10] [10, 8, 6, 4, 2] print(a[::-1])
[2, 4, 6, 8, 10] [2, 4, 6] print(a[0:3])
[2, 4, 6, 8, 10] [6, 8, 10] print(a[2:])
[2, 4, 6, 8, 10] [2, 10] a[1:4]=[]print(a)
[2, 4, 6, 8, 10] [4, 6, 8] print(a[1:4])

Original List Target List m n OUTPUT
[2, 4, 6, 8, 10] [2, 4, 6, 8, 10, 12, 14, 16, 18, 20] a[-1:] =
a[1:]+[12,14,16,18]

program:

```
# Creating a string
name = "some name"

# Convert to upper case
upper_case_name = name.upper()

# Convert to lower case
lower_case_name = name.lower()

# Capitalize the string
capitalized_name = name.capitalize()

# Replace 'e' with 'E'
replaced_name = name.replace('e', 'E')

print("Original Name:", name)
print("Upper Case:", upper_case_name)
print("Lower Case:", lower_case_name)
print("Capitalized:", capitalized_name)
print("Replaced:", replaced_name)

List Operations:
# Creating a list
L = [1, 2, 3]

# Extend the list
L.extend([5, 6, 7])

# Remove the 5th value (index 4)
del L[4]

print("Extended List:", L)

Dictionary Operations:
# Creating a dictionary
d = {'mango': 10, 'banana': 0, 'apple': 15, 'orange': 0, 'pineapple': 20}

# Remove out of stock fruits
out_of_stock_fruits = [fruit for fruit, quantity in d.items() if quantity == 0]
for fruit in out_of_stock_fruits:
    d.pop(fruit)

# Update mango quantity to 15
d['mango'] = 15

# Decrease pineapple quantity by 5
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d['pineapple'] -= 5

print("Updated Dictionary:", d)
```